

REMARKS

The present application has been reviewed in light of the final Office Action dated June 2, 2009

Claims 5, 6 and 9-11 are pending in the present application. Claims 1-4, 7 and 8 were previously cancelled. By this Amendment, claims 9, 10 and 11 have been amended.

Support for the amendments to claims 9, 10 and 11 can be found at, for example, pages 11-13 of the originally-filed specification. Applicants respectfully submit that no new matter and no new issue have been introduced by this Amendment. Entry of this Amendment is respectfully requested.

Rejection Under 35 U.S.C. §103(a) – Claims 5, 6 and 9-11

On pages 3-5 of the June 2, 2009 Office Action, the Examiner finally rejected claims 5, 6 and 9-11 under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,196,928 to Karasawa (hereinafter “Karasawa”) in view of U.S. Patent No. 4,816,909 to Kimura et al. (hereinafter “Kimura”) and U.S. Patent No. 6,466,256 to Takahashi et al. (hereinafter “Takahashi”).

The present application is related to an endoscopic imaging system wherein different types of endoscopes, with different types of CCDs, can be driven with respective predetermined frequencies while the image processing unit uses one type of signal processing clock.

By this Amendment, claim 10 has been amended to further clarify that the claimed endoscope imaging system comprises an endoscope for photoelectrically converting an optical image of a subject and outputting an image-captured signal, and an image processing

unit, to which the endoscope is detachably connected and which processes the image-captured signal from the endoscope. By this Amendment, claim 11 has been similarly amended.

Applicants have carefully reviewed the cited references and the Examiner's comments, and respectfully submit that independent claims 10 and 11, as presently amended, are patentable over the cited references for at least the following reasons.

In the Response to Arguments Section of the June 2, 2009 Office Action, the Examiner alleged that Karasawa describes a CCD drive circuit 25a being arranged within an image pickup system enclosed in the scope processor 5a. The Examiner then reasoned that if the claim term "endoscope apparatus" is interpreted as "any necessary processing circuitry needed for the endoscope to operate properly", Karasawa can be found to teach a drive circuit arranged within an endoscope apparatus.

The Examiner's interpretation of the previously recited claim term "endoscope apparatus" is unreasonably broad but, more importantly, inconsistent with the use of the term in the previously pending claims. For example, claim 10 previously claimed an endoscope imaging system provided with an "endoscope apparatus" and an "image processing unit" that detachably connects to the "endoscope apparatus". Under the Examiner's interpretation of the term "endoscope apparatus", the "endoscope apparatus" would subsume the "image processing unit" in claim 10. Such a claim term interpretation is inconsistent on its face with the language of claim 10.

Karasawa, column 3, lines 43-45, states:

The CCD 24 is provided with a drive signal sent from a drive circuit 25a in an image processing unit 25 of a video processor 5a. (emphasis added)

Thus, Karasawa does not teach or suggest an image pickup element and a drive circuit (for generating and outputting a first frequency based on the first number of pixels for sequentially reading an image signal captured on the image-capture surface of the image pickup element for every scanning line), both being arranged within an endoscope apparatus that is detachably connected to an image processing unit, as previously provided in claim 10, but instead describes CCD drive circuit 25a being arranged within an image processing unit.

For the same reasons, Karasawa also does not teach or suggest the claimed drive circuit arranged within an endoscope detachably connected to an image processing unit, as set forth in amended claim 10.

In the Response to Arguments section of the June 2, 2009 Office Action, the Examiner, alleged that Kimura, at column 5, lines 45-55, describes a reading signal generating circuit as being a part of the image pickup system and the reading signal generating circuit as being arranged within the electronic endoscope unit.

Kimura, column 5, lines 45-55, states:

In order to discriminate the type of the electronic type endoscope 11, as shown in Fig. 5, a ROM 30, storing the information showing the type of the electronic type endoscope 11, is provided in the endoscope connector 18. The ROM 30 is connected to a ROM read-out circuit 31 provided in the electronic type endoscope unit 21, to read out the electronic type endoscope type information. (emphasis added)

Applicants respectfully submit that the above-underlined portion of Kimura, column 5, lines 45-55, is a typographical error. In at least five instances, reference numeral 21 in Kimura is used to refer to an “electronic type endoscope controlling unit”. In contrast, reference

numeral 21 is used only once in Kimura to refer to an “electronic type endoscope unit”. Moreover, reference numer 21 cannot refer to an “electronic type endoscope unit” because, as stated in column 5, lines 45-55, a ROM 30, storing information on the type of electronic type endoscope attached, is read by ROM read-out circuit 31 arranged within the unit referred to by “21”.

Accordingly, Applicants respectfully submit that a person skilled in the art reading Kimura would have understood Kimura as proposing a read-out circuit provided in an endoscope control unit and not as teaching or suggesting a reading signal generating circuit provided within an endoscope apparatus.

For the same reasons, Applicants respectfully submit that Kimura also does not teach or suggest the claimed reading signal generating circuit arranged within an endoscope detachably connected to an image processing unit, as set forth in amended claim 10.

In the Response to Arguments section of the June 2, 2009 Office Action, the Examiner alleged that Takahashi describes a frequency dividing circuit (corresponding to “frequency demultiplier 50”) being part of a PLL circuit 42. Referring to Takahashi, Fig. 2, the Examiner alleged that PLL circuit 42 is arranged within an image pickup system of an endoscope apparatus. Based on this characterization of Takahashi, the Examiner reasoned that Takahashi describes a frequency dividing circuit arranged within an endoscope apparatus.

Takahashi, column 9, lines 57-60 states:

As shown in FIG. 7, the PLL circuit 42 includes...a frequency demultiplier 50.

Takahashi, column 7, lines 3-6 states:

FIG. 2 shows a block diagram of a first embodiment of the video-signal processing device according to the present invention, which is connectable to the video processor 12 of the electronic endoscope shown in FIG. 1. (emphasis added).

Contrary to the Examiner's contention, Takahashi describes frequency demultiplier 50 as being arranged within a video-signal processing device and not an image pickup system or more generally in an endoscope apparatus. Therefore, Takahashi does not teach or suggest a frequency dividing circuit provided within an endoscope apparatus.

For the same reasons, Applicants respectfully submit that Takahashi also does not teach or suggest the claimed frequency dividing circuit that is arranged within an endoscope detachably connected to an image processing unit, as set forth in amended claim 10.

Based on the above, Applicants maintain that the cited references, in combination, fail to teach or suggest every feature of the claimed endoscope imaging system set forth in amended claim 10. Claim 10, as presently amended, is therefore patentable over the cited references.

Claim 11 is patentable over the cited references for at least similar reasons.

Claim 5, 6 and 9, which depend from claims 10 and 11, respectively, include all the limitations of claims 10 and 11, respectively, and therefore are patentable over the cited references for at least the reasons set forth above with respect to claims 10 and 11.

Withdrawal of the Examiner's rejection under 35 U.S.C. §103(a) of claims 5, 6 and 9-11 is respectfully requested.

Conclusion

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

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